

### REMARKS

Claims 1-57 were pending in this application, but have been cancelled by the present amendment. New Claims 58 - 67 have been added. Hence, claims 58 - 67 are pending in this application.

### Claim Rejections

To the extent the rejections may be applied to the newly added claims, these rejections are respectfully traversed.

### The Claimed Invention

The present invention, as recited in amended claim 1, is directed to an apparatus for monitoring an oxygen partial pressure in an air mask adapted to deliver oxygen system to an operator, the air mask having an interior surface, the apparatus comprising: a sensor positioned within the air mask, mounted on the interior surface of the air mask, and capable of providing an output signal corresponding to the oxygen partial pressure **within the air mask** *[as distinguished from the cited references which do not monitor oxygen partial pressure within the air mask]*; a comparator connected to the sensor and configured to compare the output signal with a reference signal corresponding to a desired oxygen partial pressure; a power source connected to the sensor and the comparator, the **power source being independent of the oxygen system**; and

a **vibrating motor, of the type having a rotatable, eccentric mass**, mounted within the air mask, connected to the comparator, and attached to the interior surface of the air mask, the vibrating motor comprising means for vibrating the air mask if the generated signal is determined to be lower than the reference signal, **for generating a tactile warning on the face of the operator to alert the operator of a potentially hypoxic condition.**

It is respectfully asserted that none of the references, alone or in any suggested combination, teach or suggest the above combination of elements, the technical advantages of which were discussed in the previous amendments. In particular the cited references do not show or suggest the novel features noted above. The highlighted limitations are disclosed in

Applicant's specification at page 10, lines 5-15 and page 13, lines 3-10, and are therefore not new matter.

Claim 59 is dependent from Claim 58 and is believed allowable for essentially the same reasons, and is further distinguished in its recitation of a vibrating motor comprising means having sufficient mechanical vibration to break the microphone VOX and produce a warning tone through the aircraft audio system. This advantageous feature was disclosed in Applicant's specification at page 13, lines 6-10 and is not new matter.

Regarding new claim 65:

65. An apparatus for monitoring oxygen partial pressure in an air mask of the type adapted to supply oxygen to a user aboard an aircraft, comprising: a sensor **positioned within the air mask** and capable of providing an output signal corresponding to the oxygen partial pressure **directly within the air mask**;

a comparator connected to the sensor and configured to compare the output signal with a reference signal corresponding to a desired oxygen partial pressure;

a power source connected to the sensor and the comparator, the power source **being independent of the oxygen system**; and

a vibrator connected to the comparator and configured to vibrate if the generated signal is determined to be lower than the reference signal, the vibrator comprising means **for providing a tactile warning on the face of an operator sufficient to alert the operator when in a hypoxic condition.**

The claim is believed clearly to distinguish the cited references, alone or in any combination within the skill of the art. In particular, the limitations highlighted above **and in the combination recited above** are not shown or suggested in the cited art. None of the references suggest the use of a sensor positioned within an air mask capable of providing an output signal corresponding to the oxygen partial pressure directly within the air mask (as contrasted with the apparatus of Cramer). Further, none of the references teach or suggest the use of a warning device for providing a **tactile warning on the face of an operator** sufficient to alert the operator **even when the operator is in a hypoxic condition**, (as discussed in Applicant's specification at page 10, lines 1-13.)

Although the original claims have been cancelled by the present amendment, it is respectfully asserted that where applicable to the present claims, the previously presented arguments remain valid. With respect to the rejection of the claims under 35 USC 112, second paragraph, Applicants respectfully disagree that any of the claimed combinations are anticipated

by the cited art. Applicants respectfully submit that it is now even more clear that the invention recited in the present claims is directed to a device/apparatus for monitoring oxygen partial pressure in an air mask and is not the air mask itself.

Regarding the rejection under 35 USC 102(b), citing the Cramer et al. reference, it is respectfully contended that none of the newly added claims are anticipated by Cramer. As previously argued, a rejection based on anticipation under Section 102(b) is held to an extremely high standard. In order to anticipate, every element **and limitation** of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375 (Fed. Cir. 2001), *cert. denied*, 122 S. Ct. 1436 (2002). The test for anticipation is whether the claim reads on the product or process disclosed in the prior art, **not on what that reference broadly teaches**. *SSIH Equip. S.A. v. United States Int'l Trade Comm'n*, 718 F.2d 365, 218 USPQ 678 (Fed. Cir. 1983).

With respect to independent claims 58, 61, 64, and 65, and method Claim 66, Applicants respectfully submit that Cramer et al. merely teaches the broad concept of monitoring the oxygen partial pressure. It does not teach all the specific elements and their limitations recited in the claims. In particular, the novel features highlighted above are not shown or suggested in the art. The Examiner may not simply ignore this limitation.

With respect to the rejection under 35 USC 103(a), it is respectfully noted that none of the cited references teach or suggest the combinations of elements recited in the present claims. It is respectfully noted that “When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a **teaching, motivation, or suggestion** to select and combine the references relied on as evidence of obviousness.” *In re Sang Su Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1443 (Fed. Cir. 2002) (emphasis added). The mere fact that a device in a cited reference could have been modified to yield a device within the claimed invention does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The Examiner can satisfy the burden of showing obviousness of the modification “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fritch*, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

In the present case, Applicants respectfully submit that the Examiner has failed to show the objective teaching that would lead an ordinarily skilled person to combine Cramer et al. and Tripp, Jr. et al. Cramer et al. teaches the broad concept of monitoring oxygen partial pressure. This technology has been available for more than a quarter of a century. Tripp, Jr. et al. teaches monitoring a pilot's physiological condition using sensors in the air mask. This technology has been available for over a decade.

Perhaps the Examiner considers the claimed invention to be merely a combination of old features that are known in the art. Such a combination, however, in and of itself, does not preclude patentability. *In re Spinnoble*, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969) (“A patentable invention, within the ambit of 35 U.S.C. Section 103, may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose, without producing anything beyond the results inherent in their use.”) Moreover, a simple invention is not necessarily an obvious one. *EWP Corp. v. Reliance Universal, Inc.*, 755 F.2d 898, 906, 225 USPQ 20, 24 (Fed. Cir. 1985). Differences between the claimed invention and the prior art are only one element in determining obviousness, and awareness within the art of all the aspects of the claim does not alone constitute obviousness. *Jones v. Hardy*, 727 F.2d 1524, 1528, 220 USPQ 1021, 1024 (Fed. Cir. 1984).

Applicants also take this opportunity to remind the Examiner that “[i]t is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). The Examiner “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). Moreover, “that which is within the capabilities of one skilled in the art is not synonymous with obviousness.” *Ex Parte Levengood*, 28 USPQ2d 1300, 1301 (Bd. App. 1993).

In any case, Tripp, Jr. et al. actually teaches away from the claimed invention because it discloses monitoring the physiologic condition of the **person** using the air mask and not the condition in the air mask itself. Thus, an ordinarily skilled person reading Cramer et al. (which teaches monitoring the air) would not be led to Tripp, Jr. et al. (which teaches monitoring the pilot) for answers. While the goals of the two references may be essentially the same (i.e., to

make sure the pilot is awake and alert), the mechanisms they use to achieve their goals are entirely different.

Accordingly, because none of the cited prior art references, taken alone or in combination, discloses or suggests the invention recited in the independent claims, consideration and allowance of new Claims 58 – 67 is respectfully requested.

### CONCLUSION

The rejections and objections raised by the Examiner are believed to have been overcome, and Applicants believe that the claims are now in condition for allowance, which action is respectfully requested. If any questions or issues remain and the resolution of which the Examiner feels will be advanced by a conference with the Applicants' attorney, the Examiner is invited to contact the attorney at the number noted below.

The Commissioner is hereby authorized to charge any fee which may be required, or credit any overpayment, to Deposit Account No. 14-0116.

Respectfully submitted,

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